Mike John Page

Data Scientist & R Specialist
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Personal Statement

A published data and sport scientist that is highly motivated, analytical, and revels on intellectual challenges. Has experience working with elite and Commonwealth athletes in the collection and analysis of a broad range of psychological, physiological, and biomechanical markers. Recently completed an internship at DataKolektiv implementing full-stack data solutions using RDBS and Shiny and Plotly apps. Has a proven track-record working as a freelancer, recently helping a start-up receive funding for their project. Excellent communicator who thrives in creating a story from data and works diligently in interdisciplinary teams to deliver timely results.

Relevant Data Skills

- Technologies: R, Python, MySQL, PostgresSQL, Bash, Git, Markdown, SPSS Statistics, Excel, G-Power, Linux
- *Skills:* remote servers, headless browsers, data mining, web scraping, API clients, data wrangling, exploratory analysis, machine learning and statistics, data visualisation
- Data libraries: tidyverse, NumPy, pandas, httr, jsonlite, xml2, widyr, blogdown, topic-models

Completed Projects

Perfectionism in the Public Domain: A Natural Language Processing Approach: built an API client in R using the *httr* package that gathered news articles from newsriver.io. Using a tidy data approach, I then performed sentiment analysis and topic models using latent Dirichlet allocation.

Web Scraping the Weather: used Python to build a web scraper that collects the current weather forecast for a given location from Wunderground. As the weather information was rendered in JavaScript, Selenium was used in combination with Morzilla's geckodriver. The retrieved content was then parsed using Beautiful Soup. The script was then set up as a bash alias to be executed daily, as described in my blog post here.

Multilevel Modelling in SPSS: wrote a script in SPSS syntax that executed multilevel (hierarchical linear) models on nested physiological and psychological data.

GGDOT Hacknight: I ran Box-Cox transformations and regression in R to analyse the CO2 emissions of food. I created new features in the data set and found a novel and unexpected relationship in the data. The finding is now being further validated by the GGDOT group before being shared with the Public health community.

Freelance Project: Drawing Insight from Simple Data Exploration and Visualisation: used choropleth maps, dodged bar charts and other simple visualisation techniques (along-

side data exploration) to inform a new start-up of competitors, industry trends, and recommended areas for investment. The data and figures were used successfully by the company to secure independent funding.

Current Projects

Megatron: an R package that iterates through a list of data transformations, measuring distribution fit at each stage using Kolmogorov-Smirnov and Shapiro-Wilk tests and returns a normal data set with transformation summaries.

Selectr: an R package engineered to automate the statistical test selection process. Scans data frame objects for scales of measurement and takes user parameters to return a recommended statistical test and associated R package.

Education

Springboard: Introduction to Data Science

2018

- A 100-hour online data science workshop
- R, Data Wrangling, Analytics, and Data Storytelling
- Capstone project reviewed by an independent industry expert

DataCamp 2018

- Completed thirteen courses
- Python, R, Programming, Importing and Cleaning Data, Probability and Statistics

York St John University: MSc by Research in Psychoendocrinology

2016-2017

- Awarded £2500 Nestlé research grant
- Won poster presentation prize in recognition of excellence in the presentation of doctoral research at the 2016 BSPID conference
- Mastered SPSS, Excel, G-Power and complex hierarchical linear models

York St John University: Sport Science Performance Conditioning BSc

2010-2014

- 1st Class Honours
- Dissertation prize, highest course grade prize

Employment

Freelance Data Scientist

current

• deliver a range of work from web scraping to to machine learning applications

DataKolektiv Intern 2018-2019

- analysed semantic ontology networks using topic models
- built automated data systems using an RDBS back-end and Shiny front-end
- completed tasks that improved skills in data scraping and headless Linux environments

York St John University

Lecturer and Module Director: Sport and Exercise Biomechanics

2017-2018

- Curated and delivered module including lectures, labs, and assessments
- Increased mean student grade from previous years
- Collaborated with laboratory technician to organise materials for labs

Laboratory Technician: Biomechanics laboratory

2016

- Prepared equipment for teaching and research activities
- Liaised with industry partners to resolve technical issues
- Contributed to teaching and research environment

Research Assistant: Biomechanics

2014

- Analysed 3D modelling data using a Qualisys motion capture system and Visual3D
- Performed in depth literature reviews
- Managed and analysed large, complex data sets

Publications

Page, M.J., Hill, A.P., Kavanagh, O., & Jones, S. (2018). Multidimensional perfectionism and cortisol response in non-clinical populations: A systematic review and evaluation. *Journal of Personality and Individual Differences*, 124, 16-24.

Page, M.J., Hill, A.P., Kavanagh, O., & Jones, S. (2018). Cortisol Awakening Response as an Indicator of Pre-Competition Stress in Elite and Non-Elite Athletes. *Publication date TBC*.

Additional Languages

Italian: conversational | Spanish: A1

Other

Charity: cycled over 6800 Km unsupported across Europe to raise over £7000 for various charities.

Interests: Mountain biking, rock climbing, travelling, playing guitar.

References available upon request.